UItimaker Material Testing and Parameter Optimization

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| --- | --- |
| Parameter | Results (success ✔ fail ✘) |
| 1. Nut—size M4 fit |  |
| 1. Wave—rounded print |  |
| 1. Star—sharp edges |  |
| 1. Text cutout |  |
| 1. Holes | |  |  |  | | --- | --- | --- | | 3 mm | 4 mm | 5 mm | |  |  |  | |
| 1. Walls—minimum distance | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 0.1mm | 0.2mm | 0.3mm | 0.4mm | 0.5mm | 0.6mm | 0.7mm | |  |  |  |  |  |  |  | |
| 1. Minimum distance | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | 0.1mm | 0.2mm | 0.3mm | 0.4mm | 0.5mm | 0.6mm | 0.7mm | |  |  |  |  |  |  |  | |
| 1. Z-height | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 1.0 | |  |  |  |  |  |  |  |  |  |  | |
| 1. Bridge length | |  |  |  |  | | --- | --- | --- | --- | | 2 mm | 4 mm | 8 mm | 16 mm | |  |  |  |  | |
| 1. Sphere, 4.8 mm height |  |
| 1. Pyramid, 7 mm height |  |
| 1. Sphere |  |
| 1. Overhang | |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 25◦ | 30◦ | 35◦ | 40◦ | 45◦ | 50◦ | 55◦ | 60◦ | 65◦ | 70◦ | |  |  |  |  |  |  |  |  |  |  | |
| 1. No warp |  |
| 1. 3D print font |  |
| 1. Spike, 21 mm height |  |
| 1. Hole in wall, d = 4 mm |  |